

Spring 2000 School Health Services and Staffing Survey

Research & Public Health Assessment

Associateship for Family Health

Texas Department of Health

A school health services and staffing (SHSS) survey was conducted in February 2000, by the Texas Department of Health (TDH) in order to obtain information on school health services and staffing. The primary goal of this survey was to determine what health services were being offered on school campuses and the qualifications of the individuals delivering those services. This paper presents an initial exploratory analysis of some of the data provided by this survey.

In January 1997, the Texas State Board of Health (BOH) and the Board of Nurse Examiners met to discuss concerns relating to the quality of health care provided to children in Texas school campuses. As a result of this discussion, the BOH charged the Texas Department of Health School Health Program to form a diverse workgroup to explore issues related to school health and to make recommendations. This work group later became a task force, which issued a report to the Board of Health and developed the survey instrument used in the spring of 2000. As a result of the task force recommendations, the Board of Health formally established the School Health Advisory Committee and appointed members in May of 2000. This Committee provides assistance to the Board of Health in their efforts to establish a leadership role for TDH in the support for and delivery of school health services and to meet the health needs of school children, including health promotion and health services.

Utilizing the results of this survey is one of many efforts the School Health Advisory Committee is undertaking in order to assess the health care provided to children in Texas school campuses. The survey was designed to determine what health services were being offered in school campuses and the qualifications of the individuals delivering those services. The survey was administered and analyzed by the TDH Research & Public Health Assessment Division in the Associateship for Family Health.

Method

Existing State Data.

Administrative data from the Public Education Information Management System (PEIMS) were received from the Texas Education Agency (TEA) for all the public school campuses in Texas. The majority of the data was for the 1999-2000 school year. The TEA dataset was considered the master dataset because TEA is the regulatory agency in charge of educational information in Texas. Its datasets provide official information about school campuses in Texas. Each school campus was identified by a unique 9-digit county-district-school campus code that identifies each school campus individually. These data include the number of students enrolled for each school campus. These data are based on an attendance snapshot, which is the moment when official attendance is determined for all students. At the moment the snapshot is taken, a student is either present or absent.

The School Health and Staffing Services Survey.

The School Health and Staffing Services survey was an 8-page survey (see appendix). The survey was sent to 7395 school campuses listed in the TEA database. Potential respondents were asked to answer the survey questions using February 2000 as their reference timeframe. The survey contained sections on staffing (13 questions), health services (60 questions), and questions about other activities performed by health service staff (6 questions). The staffing questions asked about the job classification of employees, the type of employment contract that these persons were working under and the cumulative hours worked per week. The health services questions asked about a wide variety of health activities performed at school. For each activity potential respondents were asked to estimate the number of clients served and/or number of events that occurred during February 2000. For each activity, the person who was primarily responsible for performing that activity identified and their contractual employment status was reported.

Procedure.

The School Health and Staffing Services survey was mailed out during the spring of 2000. Surveys were sent to every school campus in the state, based on 7395 school campus mailing addresses obtained from TEA. A total of 4024 surveys were received back, an approximate response rate of 54%.

Table 1**Responses by Public Health Region.**

PHRG	Name	Number	Percent
01	Panhandle - Amarillo & Lubbock	253	6%
02	North Central Texas - Wichita Falls	154	4%
03	Dallas & Ft. Worth	947	24%
04	Northern East Texas - Tyler	227	6%
05	Southern East Texas - Beaumont	132	3%
06	Houston	679	17%
07	Central Texas - Austin	434	11%
08	South Central - San Antonio	412	10%
09	West Texas - Midland & Odessa	148	4%
10	Far West Texas - El Paso	98	2%
11	Far South Texas - Brownsville	441	11%
Unknown		100	2%
Statewide Total		4025	100%

Note. Response rate was approximately 54%, a total of 4025 surveys were received. 7439 school campuses were reported to be in operation by TEA for 1999-2000. 3925 surveys were matched to PHR regions, 100 had missing or invalid codes.

Table 1, above, summarizes the number of surveys received from each public health region. The majority of surveys, as it would be expected based on population distribution, came from the major metro areas of Dallas/Ft. Worth, Houston, Austin, San Antonio and Brownsville.

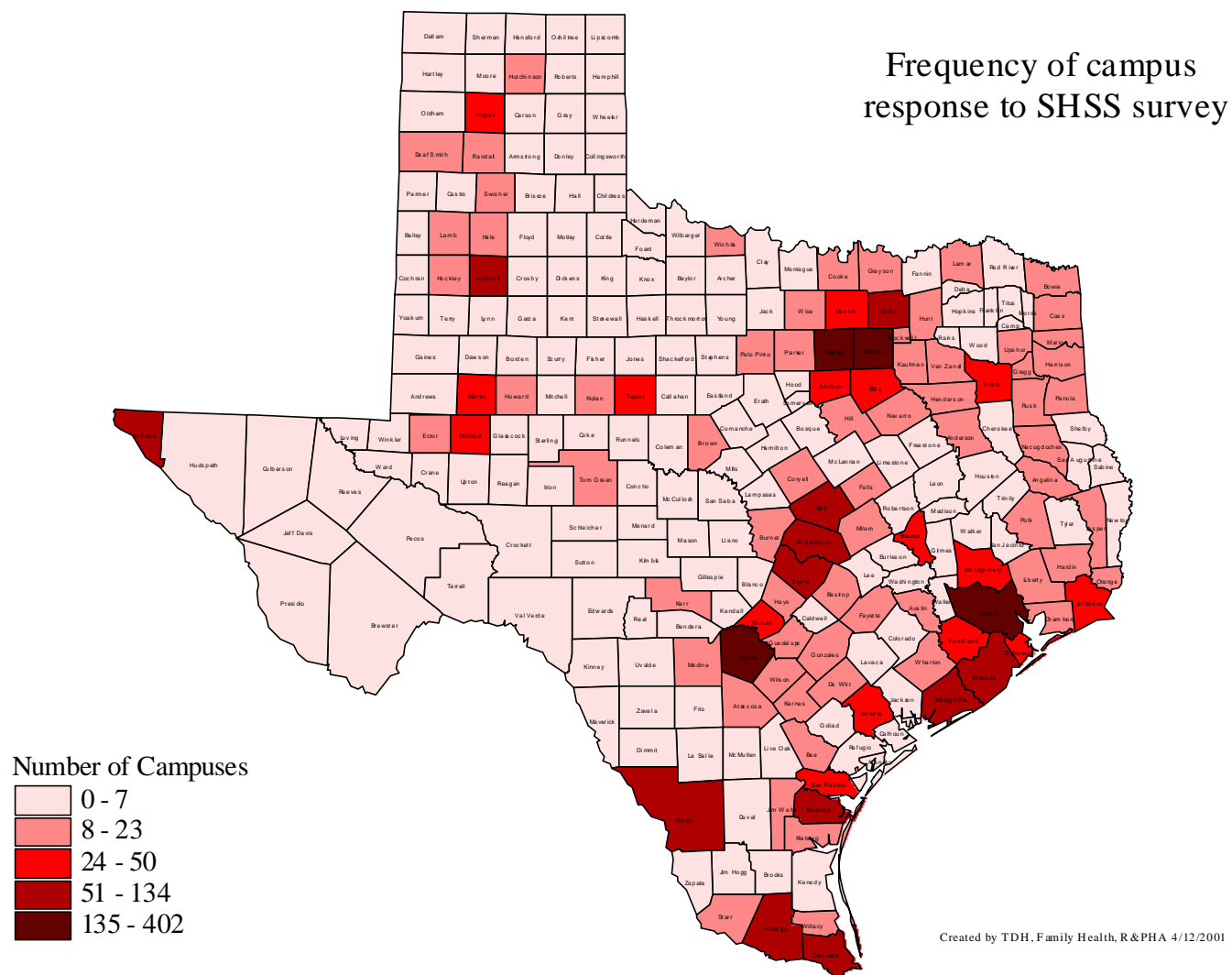
Figure 1**SHSS surveys received by county.**

Figure 1, above, shows the number of surveys received from each county. This map clearly shows that the most surveys were received from counties, which contain metro areas. The larger the metro area, the greater the number of surveys received.

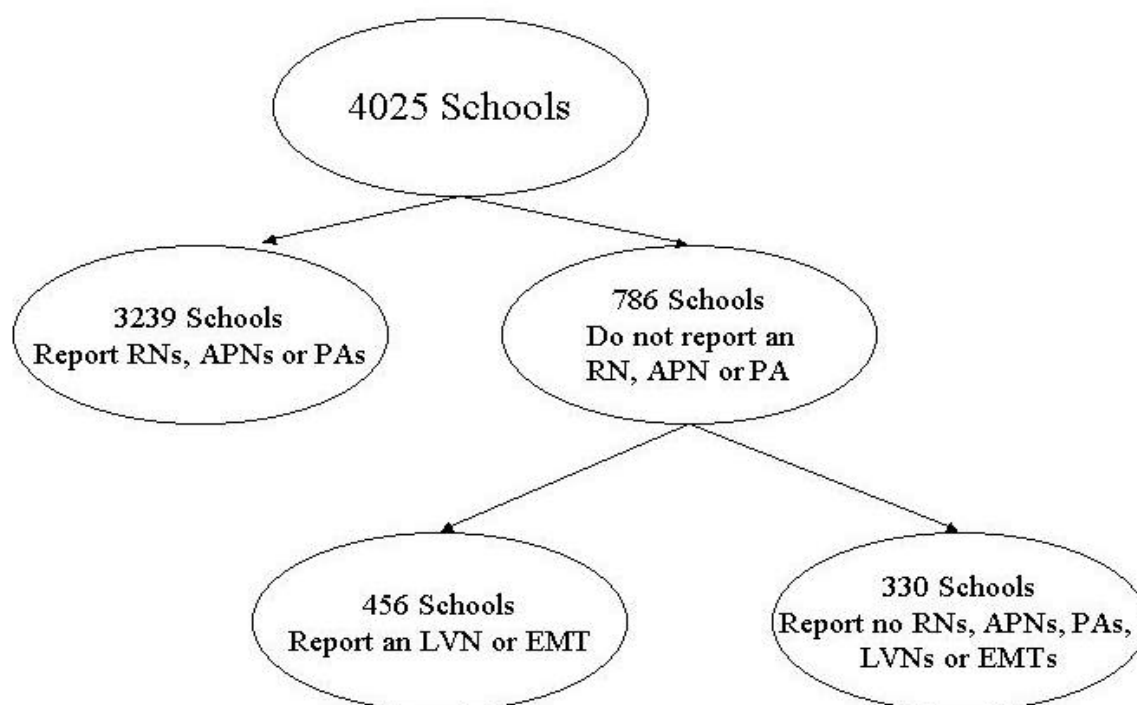
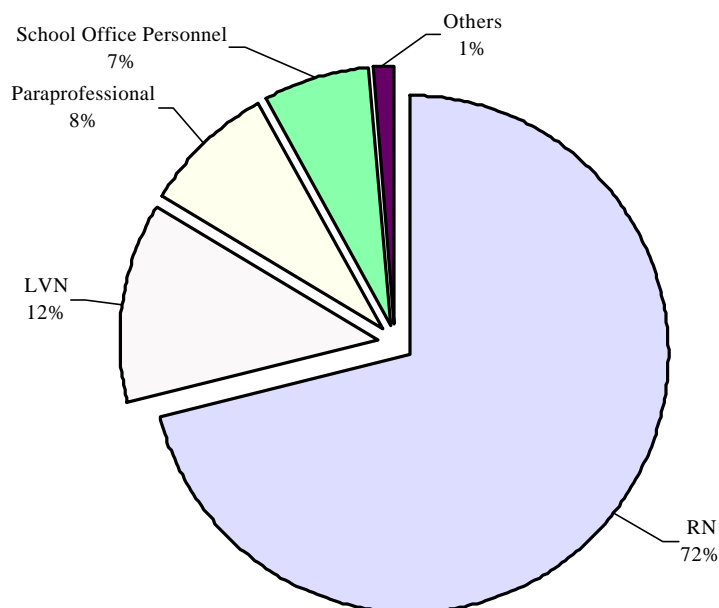
Figure 2**Staffing patterns among responding school campuses.**

Figure 2, above, diagrams the number of school campuses employing professionals capable of independent practice, those employing medically trained non-independent practitioners, and those without any professional staff. The majority of school campuses (3239) were staffed by a professional capable of independent practice, such as a Registered Nurse (RN), Advanced Practice Nurse (APN), or Physicians Assistant (PA). Of those school campuses that did not have a professional capable of independent nursing practice (786), many of these school campuses did employ some type of health staff usually in the form of a Licensed Vocational Nurse (LVN) or Emergency Medical Technician (EMT). Relatively few school campuses (330) reported employing no health staff.

Table 2**Detailed school campus staffing patterns.**

STAFF TYPE	TOTAL with staff of this type	Percent WITH staff of this type	TOTAL with NO staff of this type	Percent with NO staff of this type	Total VALID school campuses
Registered Nurse (RN)	3,205	79.8%	809	20.2%	4,014
Advanced Practice Nurse (APN)	65	2.0%	3,958	98.0%	4,023
Physician Assistant (PA)	14	0.0%	4,007	100.0%	4,021
Licensed Vocational Nurse (LVN)	686	17.0%	3,338	83.0%	4,024
Emergency Medical Technician (EMT)	36	1.0%	3,985	99.0%	4,021
School Office Personnel (SOP)	1,416	50.0%	1,416	50.0%	2,832
Paraprofessional (PP)	1,689	42.0%	2,328	58.0%	4,017
Teacher (TCH)	593	15.0%	3,418	85.0%	4,011
Other (O)	544	14.0%	3,462	86.0%	4,006

Table 2, above, displays the detailed staffing patterns by type of health service personnel across school campuses. The vast majority of school campuses (79.8%) reported employing a Registered Nurse. A substantial number of school campuses employed a Licensed Vocational Nurse (17%). These two categories account for the majority of trained health service personnel. Relatively few school campuses reported employing Advanced Practice Nurses, Physicians Assistants, or Emergency Medical Technicians. In addition to formally trained health service personnel approximately half of all school campuses reported employing school office personnel, paraprofessionals or teachers as part of their health service staff.

Figure 3**Type of personnel primarily staffing the health room/clinic.**

Note. Base on a total of 4025 school campuses.

Figure 3, above, summarizes the type of health service personnel who primarily staff the health room/clinic. The survey specifically asked who was primarily responsible for staffing the health room/clinic on the school campus because this will indicate who is primarily responsible for the majority of health services performed on the school campus. Registered Nurses (RNs = 71%) or Licensed Vocational Nurses (LVNs = 12.4%) were most frequently the primary staff for school campuses health services. A relatively small number of school campuses (16%) were staffed primarily by non-health personnel such as school office personnel, paraprofessionals and teachers.

Table 3**Employment status of RNs and LVNs.**

Employment Status of RN's	Total Number	Percent
District/School Employee	3,121	86.6%
Shared Service Agreement	32	0.9%
Volunteer	55	1.5%
Contract	195	5.4%
Missing	203	5.6%
TOTAL	3,606	100%

3230 school campuses report employing 3606 RNs

Employment Status of LVN's	Total Number	Percent
District/School Employee	659	89.3%
Shared Service Agreement	9	1.2%
Volunteer	12	1.6%
Contract	29	3.9%
Missing	29	3.9%
TOTAL	738	100%

686 school campuses report employing 738 LVNs

Sample Selection Note. Total does NOT add up to 4025 school campuses. School campuses may employ multiple nurses. Only school campuses reporting employment of 7 or fewer RNs & LVNs included, which is 3659 school campuses, about 90% of the original sample.

Table 3, above, displays the employment status of RN's and LVN's. Because RN's and LVN's make up the majority of health staff employed by school campuses, they were the only two groups examined for their contractual employment status. The majority of both groups (> 85%) were District/School employees. Relatively few were either employed using a shared service agreement or contract. Less than 2% of RNs or LVNs were volunteers.

Table 4**Most frequent Health Service Activities.**

	<u>Total number of school campuses reporting any clients or events across ALL school campuses</u>		<u>Average number of clients or events WITHIN school campuses reporting clients or events</u>	
Activity	Number of school campuses reporting any Clients	Number of school campuses reporting any Events	Average number of Clients	Average number of Events
First aid for minor illness	.	3,750	.	275
First aid for minor injury	.	3,740	.	165
Medication — oral*	.	3,754	.	462
Weights (Heights)	.	2189 (2,065)	.	63 (66)
Health counseling/educ. w/ student	2,521	3,191	127	106
Health counseling/educ. w/ adult	2,429	3,062	47	46
Hygiene	2,154	.	42	.
Referrals to public assistance agencies	2,125	2,181	15	13
Case management	995	.	42	.

Note. Time period for estimation of number of events and clients was February 2000. Total number of school campuses = 4025, a "." indicates that data were not collected. *oral medication question was asked separately from inhalers, injectables, and "other" medications.

Table 4, above, displays the most frequent activities performed on school campuses. The most frequent activities were determined by examining their frequency across all school campuses. The most frequent activities were based on both number of clients seen and the total number of events. The majority of services that were being performed appear to be health service activities such as first aid, medication and health counseling that are appropriate for nurses to perform. This was an important issue because of concerns that too much of nurses time was being devoted to non-nursing tasks and that unlicensed staff were performing nursing services.

Table 5**Types of persons performing the most frequent activities.**

	RN's	LVN's	Other personnel*
	Percentage of school campuses reporting RN primarily performing this activity	Percentage of school campuses reporting LVN primarily performing this activity	Percentage of school campuses reporting non-medical staff primarily performing this activity
First aid for minor illness	58% (n = 2,334)	11% (n = 447)	13% (n = 516)
First aid for minor injury	58% (n = 2,334)	12% (n = 461)	13% (n = 542)
Medication — oral	60% (n = 2,335)	11% (n = 445)	16% (n = 639)
Weights & Heights	42% (n = 1,734)	8% (n = 324)	6% (n = 253)
Health counseling/education w/ student	62% (n = 2,484)	10% (n = 382)	5% (n = 196)
Health counseling/education w/ adult	61% (n = 2,460)	9% (n = 345)	3% (n = 129)
Hygiene	22% (n = 899)	5% (n = 195)	24% (n = 985)
Referrals to public assistance agencies	47% (n = 1,892)	7% (n = 281)	3% (n = 101)
Case management	23% (n = 931)	2% (n = 62)	2% (n = 76)

Note. *Other personnel include teachers, school office personnel, and para-professionals. Percentages calculated from 4025 (the number of surveys received), do not add percentages across the rows or down the columns, each item was calculated based on the total number of surveys received.

Tables 5, above, displays the percentage of school campuses reporting RNs, LVNs, and other personnel primarily performing different activities. RNs and LVNs appear to generally be performing activities consistent with their level of training. For example, it is primarily RNs who are performing health counseling/education, and medication. Slightly more non-medical personnel (not RNs or LVNs) were performing hygiene related activities. This was an important issue because of concerns that the nurse's time was being overly devoted to non-nursing tasks.

Table 6**Health staff averages and ratios to number of students.**

AVERAGES	RNs	LVNs	Both RNs & LVNs
Total number of nurses employed per school	0.99	0.20	1.18
Average hours per nurse per week per school	30.2	31.9	30.7
Average cumulative weekly hours for all nurses per school	28.5	6.3	34.9
Ratio of students to nurses	647	575	602
Ratio of students to total weekly hours of nurses	28.3	22.6	24.3

Note. Only school campuses reporting employment of 7 or fewer RNs & LVNs included, this is a total of 3659 school campuses, about 90% of the original sample.

Table 6, above, shows the health staffing averages and their ratio to student enrollment. On average there was slightly over one FTE nursing professional (RN or LVN) per school. On average those school campuses that employed an RN or LVN appear to do so on a full-time basis (greater than 30 hours per week). Relatively few school campuses employed nurses in a part-time capacity (less than 30 hours per week). There appeared to be about one FTE nursing professional (RN or LVN) per 600 students. The total number of students divided by total number of weekly nursing hours available at school was used to determine the ratio of available nursing staff time per student.

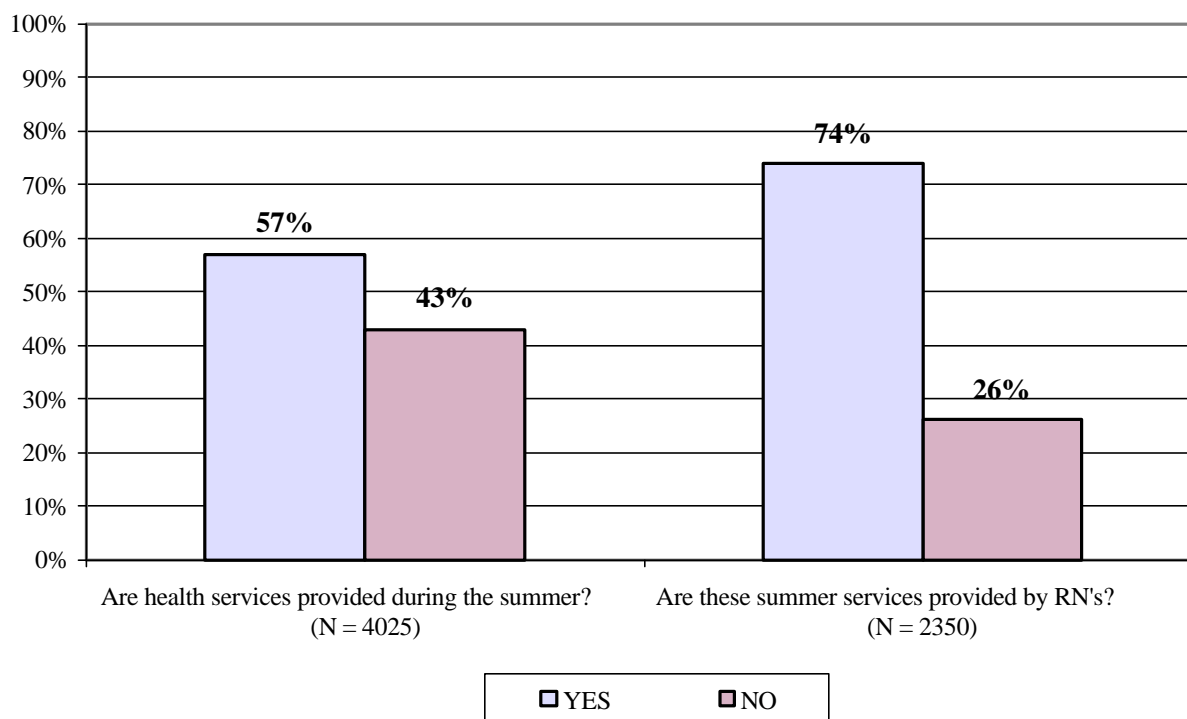
Figure 4**Summer Health Services.**

Figure 4, above, displays the percentage of schools providing health services during the summer and who is providing those services. A majority of school campuses provide summer school health services which are generally provided by Registered Nurses.

Conclusion

This survey fulfilled its objective of providing information on the type of health services that are being offered in school campuses and the qualifications of the individuals delivering those services.

Although most of the school campuses (about 90%) in the survey appear to have some type of professional nursing staff a small portion (less than 10%) of them do not. Most health service staff appear to be performing duties that are generally appropriate to their level of training. In addition most health service staff appear to be employed on a full-time basis rather than on a part-time or temporary basis. This would appear to indicate that most school campuses are able to offer at least a minimal level of health services.

The overall response rate for the survey was relatively low (approximately 54%) which leaves open the possibility that the results presented here are not generalizable across the state because the sample is potentially biased. For example, it is possible that the school campuses that did not respond to the survey may have poorer health staffing and services than the school campuses that did respond. In addition there were response format aspects to the survey instrument itself, which may have either lowered the response rate or produced inaccurate information. No follow-up reminders were sent to non-respondents. Future health service and staffing surveys should adopt a simpler response format, be shorter in length, and include follow-up reminders in order to address these concerns.